

AMENDMENT TO THE ABSTRACT OF THE DISCLOSURE

Delete the Abstract of the Disclosure and replace with the following:

-- ABSTRACT OF THE DISCLOSURE

A fail-safe torque transducer system, and an automotive power steering torque sensor system ~~employing the same~~, utilizing a two-stage series coupled torsion bar system. The ~~A~~ first stage torsion bar ~~is used to provide~~ low torsion rate tuning of the steering system, and by reducing its diameter relative to the second stage, provides a lower torsional spring rate and higher operational stress level than that of the second stage. The second stage torsion bar is ~~larger in diameter than the first and~~ provides the stress/strain indicia referenced by the a torque-measuring device. ~~The second stage torsion bar, and being stiffer and larger in diameter, is stressed at a lower level than the first stage. The second stage bar and therefore has a higher cycle life than that of the first stage bar. Moreover~~ Hence, if stress related failure ever occurs, it will only occur in the first stage torsion bar. ~~Any failure of the first stage will prevent thereby preventing~~ any torque from reaching the second stage, thereby causing a zero strain signal and thus rendering the system fail-safe and not subject to instability of vehicle steering if the torsion bar breaks.--